

CHAPTER 6

ADDITIONAL CEQA CONSIDERATIONS

CUMULATIVE IMPACTS

INTRODUCTION

This chapter of the DEIR focuses on the cumulative environmental impacts of the Mountain House New Town. The CEQA Guidelines require a discussion of the potential cumulative impacts that could result from a proposed project in conjunction with other projects in the vicinity that are pending, have been recently approved, or are proposed. Cumulative impacts occur when two or more individual projects together create a considerable environmental impact, or if they compound or increase other environmental impacts.

Cumulative environmental impacts for each environmental issue may cover different geographic regions or different cumulative projects, depending on the particular issue. For example, cumulative air quality impacts cover the entire San Joaquin Valley air basin, while the assessment of cumulative land use and public utility impacts addresses growth projected within southwestern San Joaquin County. The geographic area for each issue is explained at the beginning of each subsection discussed below.

San Joaquin County adopted a new General Plan in July 1992 that included approval of two new communities: Riverbrook and New Jerusalem. The Mountain House new town was added to the General Plan Map in February 1993. The City of Tracy adopted a new General Plan (the Tracy Urban Management Plan) in June 1993. The updated Tracy plan projects that the City may quadruple in population (an increase from approximately 40,000 to about 160,000 persons) over a thirty- to forty-year planning period. The cumulative analysis in this DEIR addresses 2010 growth for San Joaquin County; the analysis is based on population projections and other information from the 1992 FEIR (~~San Joaquin County~~ **BASELINE**, 1992be) for the County's General Plan 2010. Although the City of Tracy's new General Plan includes higher growth projections than the County General Plan at full buildout, much of the City's growth is not expected until after the year 2010.

As a basis of reference, this DEIR also addresses other out-of-County and specific San Joaquin County projects within an approximately 30-mile radius of the Mountain House site that are proposed or under construction (Table 6.1 and Figure 6.1). Information regarding recently approved projects or plans, or proposed projects, has been received from individual jurisdictions in San Joaquin, Contra Costa, Stanislaus, and Alameda counties, and planning documents.

TABLE 6.1

CUMULATIVE PROJECTS IN SAN JOAQUIN, STANISLAUS, CONTRA COSTA, AND EASTERN ALAMEDA COUNTIES

Project Name	Status	Approximate Acreage	Approximate Distance from Mountain House (miles)	Total New Residential Units	Commercial Uses (acres)	Industrial Uses (acres)	Other
SAN JOAQUIN COUNTY							
1. New Jerusalem Expanded Community	Approved in updated County General Plan 2010, work on Master Plan has not begun. ¹	3,225	≈ 10	7,562	221	330	831 acres for open space and recreation, 268 acres for roads and utilities, 80 acres for schools
2. Tri-State/Cheng (expansion of Patterson Pass Business Park west of Patterson Pass Road)	Approved in updated County Plan, Special Purpose Plan being prepared for first 80 acres. ²	326	1-2		10 freeway service	70 light industrial	
3. Patterson Pass Business Park (south of Schulte Rd.)	Special Purpose Plan being prepared for 48 acres. ²	285	≈ 2.5		10 freeway service	275 (204 acres are developed, including Safeway)	
4. I-205/Grant Line Tracy shopping mall (part of Tracy Urban Management Plan)	Wal-mart store opened in 1993. Remaining acreage is undeveloped. ¹	405	≈ 2		90 regional shopping 161 commercial	76 light industrial	Remainder is Urban Reserve and interchange
5. I-205/MacArthur Tracy shopping mall (part of Tracy Urban Management Plan)	First phase of factory outlet mall under construction. ³	50	≈ 5		50 (first phase is 180,000 sq. ft., with 40 stores. Buildout will be 330,000 sq. ft. mall)		

Table 6.1 - continued

Project Name	Status	Approximate Acreage	Approximate Distance from Mountain House (miles)	Total New Residential Units	Commercial Uses (acres)	Industrial Uses (acres)	Other
6. City of Tracy Urban Management Plan	Adopted in June 1993. ³	11.5 sq. mi., 65,303 acres	≈ 3.3	≈ 45,000 (≈ 120,000 new population)	1,500	6,500	
7. Tracy Hills "new town" (part of Tracy Urban Management Plan)	Project withdrawn by developer (Grube); still in General Plan. ^{1,3}	5,886	≈ 4	7,600 (21,000 new population)	510 commercial and industrial		Two golf courses
8. City of Lathrop General Plan	Approved December 1991. ⁴	15,436	≈ 15	8,700 (23,000 new population)	(22,000 jobs)		
9. Crossroads Commerce Center (part of Lathrop General Plan)	Three major projects completed or under construction: Factory outlet center (136,000 sq. ft.), Allied Signal plastics plant (1.5 million sq. ft.), and Nestle USA distribution center (750,000 sq. ft.). ⁴	630	≈ 15		630 commercial and industrial		
10. Gold Rush City (part of Lathrop General Plan)	Specific Plan being prepared. ⁴	5,000	≈ 15	4,000 lodging rooms	5.4 million sq. ft.		Major resort theme park
11. City of Manteca Public Facilities Implementation Plan GPA (includes update of GP area south of SR 120)	Approved in December 1993. ⁵	8,500	≈ 17	22,600 (67,200 new population at full buildout)	2,800 commercial and industrial (≈ 54,000 jobs)		
12. City of Stockton 1990 General Plan Revision	Updated plan approved in 1991. ⁶	9,500	≈ 20	≈ 55,000 (≈ 145,000 new population)	(≈ 60,000 jobs)		

Table 6.1 - continued

Project Name	Status	Approximate Acreage	Approximate Distance from Mountain House (miles)	Total New Residential Units	Commercial Uses (acres)	Industrial Uses (acres)	Other
13. Riverbrook Expanded Community	Approved in updated County General Plan. No action on Master Plan yet. ¹	909	≈ 20	2,500	5.3	6.4	Golf course
STANISLAUS COUNTY							
14. Diablo Grande GPA and Specific Plan	Project is in litigation. Grading for first golf course is in progress. ⁷	29,500	≈ 30	5,000 (12,000 population)			Five golf courses, conference center, winery
EASTERN CONTRA COSTA COUNTY							
15. Discovery Bay West GPA	Pending. ⁸	1,000	≈ 7.5	1,700			Golf course, school
16. Albers GPA	Approved May 1993. ⁸	74	≈ 6	296	15 (includes offices)		Lake
17. Byron 78 GPA	Approved September 1993. ⁸	78	≈ 6		10		Remaining acreage is undeveloped wetlands.
18. East Contra Costa Airport	Approved; under construction. ⁸	1,270	≈ 3	Aircraft-related industrial uses allowed. (Parking for 400 aircraft; 6,000 feet of runway.)			
19. City of Brentwood Updated General Plan	Approved in June 1993. ⁹	16,700	≈ 14	23,500 (65,000 new population)	(23,300 jobs)		
20. Cowell Ranch "new town"	EIR being prepared. ⁸	4,277	≈ 13	7,586 (11,500 to 12,800 new population)	600,000 sq. ft.	2,000,000 sq. ft. business park	

Table 6.1 - continued

Project Name	Status	Approximate Acreage	Approximate Distance from Mountain House (miles)	Total New Residential Units	Commercial Uses (acres)	Industrial Uses (acres)	Other
21. Future Urbanization Areas #1 and #2, City of Antioch	EIR being prepared. ¹⁰	3,500	≈ 18	5,500 (15,000 population)		170	
EASTERN ALAMEDA COUNTY							
22. Expansion of Altamont Landfill	EIR being prepared ¹¹	880	≈ 5				880 acres of added disposal area
23. Alameda County Waste Management Authority Composting Facility	DEIR has been prepared. In public hearings. ¹²	2,000-3,000	≈ 5				Compost facility being proposed as an initial facility on-site.
24. City of Livermore, North Livermore GPA	Approved in 1993. ¹³	3,600 (urban acreage)	≈ 9.5	12,100 (30,000 new population)	590 acres	(480 acre business park included in Commercial uses)	11,800 acres open space/rural uses
25. East County Area Plan (update of Alameda County General Plan for the Livermore-Amador Valley area)	Approved in May 1994. ¹⁴	GP covers 418 sq. mi. area, with two major new urban area (E. Dublin and No. Livermore, approx. 7,100 acres)	≈ 10	Approximately 40,000 new units in Dublin, Livermore, Pleasanton area (Assumes up to 12,100 units and 30,000 population in North Livermore)			
26. Alameda County, South Livermore Area Plan	Adopted. Location of new units to be determined. ¹⁴	800	≈ 11	1,600			

Table 6.1 - continued

Project Name	Status	Approximate Acreage	Approximate Distance from Mountain House (miles)	Total New Residential Units	Commercial Uses (acres)	Industrial Uses (acres)	Other
27. East Dublin Specific Plan and GPA, City of Dublin (overlaps with part of North Livermore GPA)	Approved in May, 1993. ¹⁵	3,300 (Specific Plan area)	≈ 16	12,400-13,900 (27,600-32,500 new population)	702 (commercial and industrial total)		
28. Ruby Hills GPA	Approved; under construction. ¹⁴	1,303	≈ 16	850			Golf course club, 300 acres of viticulture
29. Hacienda Business Park, City of Pleasanton	4.7 million sq. ft. of office built. Another 600,000 sq. ft. has been approved, and an additional 5.2 million sq. ft. is planned, but not yet approved. ¹⁶	833	≈ 17		833		
30. Various business parks, City of Pleasanton	Among nine separate parks, approx. 3.1 million sq. ft. of office, retail, and light industrial space is approved or planned. ¹⁶	520	≈ 17		520		
31. Kaiser Sand and Gravel Reclamation	No application yet for reuse of reclaimed area. ¹⁴	757	≈ 17	530		8	
CENTRAL CONTRA COSTA COUNTY							
32. Dougherty Valley GPA and Specific Plan	Approved. Lawsuits filed. In litigation. ⁸	5,000	≈ 25	11,000			

Table 6.1 - continued

Project Name	Status	Approximate Acreage	Approximate Distance from Mountain House (miles)	Total New Residential Units	Commercial Uses (acres)	Industrial Uses (acres)	Other
33. Country Club at Gale Ranch (part of Dougherty Valley GPA)	EIR being prepared. ⁸	618	≈25	1,216			218-acre golf course
34. Tassajara Valley GPA	EIR being prepared. ⁹	2,000	≈20	3,000			

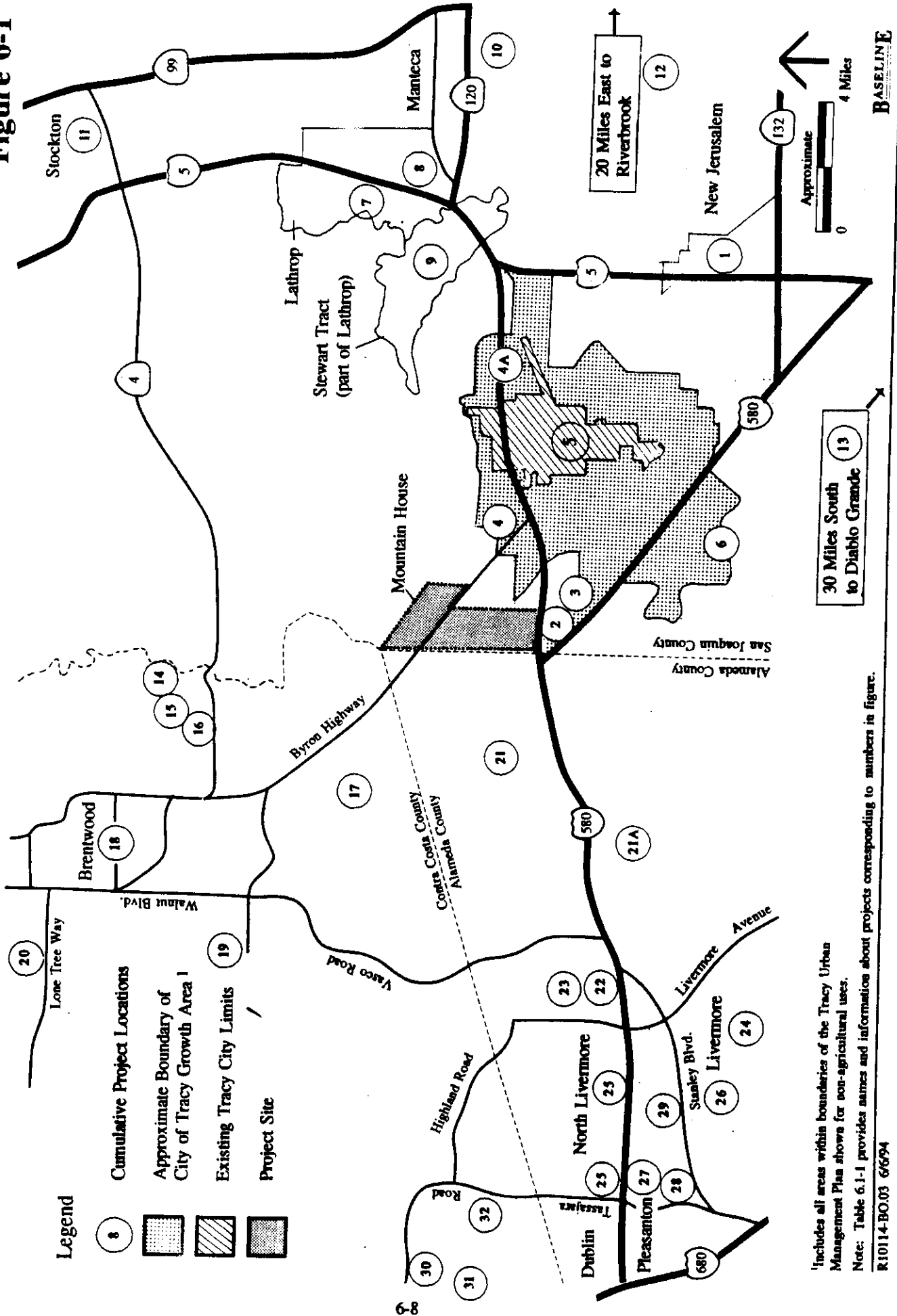
Sources compiled by BASELINE: based on interviews with city and county planners, review of General Plans and EIRs, and planning documents. Specific references and telephone conversations include:

- ¹ San Joaquin County, Comprehensive Planning Program FEIR;
- ² BASELINE, 1994, Special Purpose Plan for a Portion of the Patterson Pass Business Park, February;
- ³ City of Tracy Urban Management Plan DEIR (March 1993), and David Storer, Senior Planner;
- ⁴ City of Lathrop General Plan and FEIR (December 1992);
- ⁵ City of Manteca Public Facilities Implementation Plan and South Manteca GPA (December 1993), Ben Cantur, Senior Planner, and Frederick Clark, Engineer;
- ⁶ City of Stockton General Plan Revision DEIR (August 1989);
- ⁷ Stanislaus County Diablo Grande DEIR, Bob Kachel, Senior Planner, Ron Freitas, Planning Director;
- ⁸ Contra Costa County, Jim Cutler, Assistant Director;
- ⁹ City of Brentwood General Plan 1993-2010;
- ¹⁰ City of Antioch, Victor Carniglia, Deputy Director;
- ¹¹ Altamont Landfill, Arlyn Purcell, ESA;
- ¹² Alameda County Waste Management Authority, Dick Edminister, Planning Manager;
- ¹³ City of Livermore, North Livermore GPA FEIR, Bob Brown, Planning Director;
- ¹⁴ Alameda County East County Area Plan, FEIR; Deborah Stein, Assistant Director, and Stuart Cook, Planner;
- ¹⁵ City of Dublin, Carol Cirelli, Senior Planner;
- ¹⁶ City of Pleasanton, cumulative projects list and Kerry Walt, Planner.

Notes: Locations of all projects are shown in Figure 6-1. Also see Tables 6.2 and 6.3. Some of the projected growth may occur after 2010. Some growth estimates have been rounded. GPA = General Plan Amendment.

CUMULATIVE PROJECT LOCATIONS

Figure 6-1



Includes all areas within boundaries of the Tracy Urban Management Plan shows for non-agricultural uses.
 Note: Table 6.1-1 provides names and information about projects corresponding to numbers in figure.

The FSEIR contained a detailed analysis of cumulative impacts. That analysis identified the following potentially significant cumulative impacts, which are in addition to project-related impacts already discussed:

- The cumulative loss of agricultural land in the Central Valley due to urbanization;
- Increased demand on park facilities in southwestern San Joaquin County and in adjacent Alameda County;
- A need for more school facilities than are currently planned by the Tracy Joint Union High School District and the Lammerville Elementary School District;
- Increased demand for police and fire protection provided by the San Joaquin County Sheriff's Department and Tracy Rural Fire Protection District;
- Increased overdrafting of the regional groundwater basin, if planned development projects turn to groundwater supplies when surface water supplies are not adequate;
- Increased runoff into the Old River of treated wastewater effluent that is used to irrigate agricultural lands in the area;
- Increased demand for the disposal of sludge in public and private landfills in the County;
- Increased stormwater discharges from urban development into the Old River;
- Increased use of non-renewable fuels such as gas and electricity;
- Increased flow velocity and flood discharges in the Old River, and an increase in boating activity within the South Delta;
- A worsening of the "jobs/housing balance" (the ratio of jobs to employed residents) in the southwestern San Joaquin County area, if housing growth outpaces job creation;
- A net reduction in existing habitat for wildlife, including habitat for a number of special-status taxa, notably the Swainson's hawk and the San Joaquin kit fox;
- Unmitigable impacts on some regional freeway segments and arterials, due to cumulative development in the region;
- Failure to attain air quality standards in the San Joaquin Valley air basin for ozone, carbon monoxide, and PM-10 (small particulate matter), due to cumulative growth in population and employment; and

6.0 ADDITIONAL CEQA CONSIDERATIONS

- Significant increases in noise levels along main access roads in the Tracy area, which now carry very low traffic volumes.

The following discussion addresses those previously identified impacts that have changed and are now updated.

LAND USE AND AGRICULTURAL ISSUES

The cumulative loss of agricultural land in the Central Valley, based on urbanization rates in the 1970s and 1980s, has been estimated by the American Farmland Trust as approximately 12,000 acres per year over ten counties (American Farmland Trust, 1989). Based on the most recently adopted General Plans for San Joaquin County and the seven cities, it is estimated that approximately 35,000 acres of agricultural land, most of which is classified as "prime," is designated for urban development. The Mountain House project would contribute about 13 percent to this anticipated conversion. Prime agricultural land is considered a natural resource under CEQA, and the loss of agricultural land is a significant cumulative impact which cannot be mitigated.

The Central Valley produces more than one-half of the nation's table grapes and almonds, and one-third or more of its peaches, cantaloupes, and walnuts. The Valley's agriculture accounts for approximately three-fifths of the State's \$17.8 billion farm industry. San Joaquin County's leading agricultural products include milk, grapes, cherries, walnuts, and tomatoes. The value of agricultural production in the County for 1992 was \$902,500,000 (San Joaquin County Agricultural Commissioner, 1992).

As urban development encroaches into agricultural lands, land use conflicts increase. Transplanted urbanites moving into the Central Valley to find cheaper housing object to noise, odors, dust, and chemical drift from farming operations. Conversely, farms experience theft, trespassing, illegal dumping of refuse, and free roaming dogs chasing livestock. Complaints from new residents historically result in more restrictions placed on the farmer.

Mitigation Measures

San Joaquin County should impose an agricultural conversion impact fee, which can be used to purchase development rights or support land trusts, to mitigate for the loss of agricultural land, as recommended in Mitigation Measure M4.1-1. A policy recommending establishment of such a fee is included in the County's General Plan 2010.

Jurisdictions in San Joaquin County and elsewhere in the Central Valley should be encouraged to increase the densities of planned future urban development on agricultural lands. By increasing residential densities only slightly, for example from an overall average subdivision density of four or five units per acre to six or seven units per acre, the same amount of population growth could be accommodated on less agricultural acreage. Increasing overall average densities would help to preserve more agricultural and open space lands on the fringe of the urban areas and would prevent low density suburban "sprawl."

Jurisdictions throughout San Joaquin County and the Central Valley should also modify their General Plans to designate agricultural lands for urban growth that will be accommodated during a planning period not to exceed twenty or twenty-five years. Many Central Valley cities and counties have adopted General Plans that designate far too much land for the amount of residential and commercial/industrial growth that can reasonably be anticipated over a twenty-year planning period. Designation of excess agricultural lands for urban development can lead to land speculation, an increase in assessed values, and property taxes, and the premature curtailment of agricultural operations.

The legal findings that must be adopted by each of the Central Valley County Local Agency Formation Commissions (LAFCOs) when approving annexations of agricultural lands, or other LAFCO actions, should be modified to incorporate additional findings related to the preservation of agricultural lands. Such additional findings could require discussion of: the likelihood for the conversion of additional agricultural lands, if the application is approved; whether the application is consistent with the adopted population and growth projections included in the applicable city and County General Plans and in Council of Government forecasts; and the consistency of the application with other agencies' land use plans and zoning.

PUBLIC SERVICES

Parks and Recreation

The geographic area analyzed for cumulative recreational impacts includes the Livermore Valley in Alameda County, the Brentwood area of eastern Contra Costa County, and all of San Joaquin County. The 2010 growth projections identified in the San Joaquin County General Plan 2010 (San Joaquin County, 1992b) were considered in determining recreational impacts. Potential development in the Livermore Valley could result in an increase of about 44,000 new residential units and growth in Eastern Contra Costa County could add over 33,000 units (Table 6.3).

Development in southwestern San Joaquin County and in the City of Tracy would place tremendous demands on the existing County park system unless new development provides sufficient parkland and recreational facilities to meet this demand. On a county-wide basis, an additional 3,600 to 4,400 acres of regional parks would be needed by 2010 (~~San Joaquin County~~ **BASELINE**, 1992be) to support the projected population assuming 10 acres of regional park per 1,000 residents. Developers can set aside parkland or pay in-lieu fees to help defray the cost of land acquisition, equipment, and staffing.

The demand for day use activities at nearby regional and State parks in Alameda and Contra Costa counties would significantly increase as development occurs in southwestern San Joaquin County, the Livermore Valley, and eastern Contra Costa County. Existing regional park facilities that could be significantly impacted include Bethany Reservoir and Lake Del Valle in Alameda County and Carnegie State Vehicular Recreation Area in San Joaquin County. As wind surfing gains popularity, the Bethany Reservoir State Recreation Area in Alameda County could become an especially attractive location because of the high winds, warm temperatures in the summertime, and shallow waters. As the demand for park facilities increases, city, county, regional, and State park

6.0 ADDITIONAL CEQA CONSIDERATIONS

departments/districts would be required to hire additional personnel to monitor activities and park visitors. Some of the demand could be accommodated by new park facilities that are planned in the region, such as facilities at Los Vaqueros Reservoir and Round Valley in eastern Contra Costa County.

Mitigation Measures

A regional recreational task force should be formed to develop funding mechanisms to expand and maintain regional recreational facilities in the three-county area. In particular, San Joaquin County should participate in, and coordinate with, park planning efforts by the East Bay Regional Park District. San Joaquin County, in conjunction with the cities in San Joaquin County, should develop a fee structure to finance regional parks. As stated in the San Joaquin County General Plan 2010, dedication of parkland or in-lieu fees for local parks will continue to be required. This should be expanded to address regional parks.

PUBLIC UTILITIES

Water Demand

The geographic area used to define the area that could be affected by cumulative growth seeking a water supply is the Tracy Planning Area of San Joaquin County. In this Area, approved, pending, and proposed development projects allowed under County or City plans will address water demand through a combination of surface water and groundwater supplies, reclamation and conservation, and other sources. Existing irrigation districts will be faced with increasing requests to reallocate water used for agricultural irrigation to new municipal and industrial uses. If surface water resources were inadequate, development projects could turn to groundwater to meet the demand. Lack of adequate water supply is not an environmental impact in itself. However, impacts to groundwater could result if projects were to use groundwater pumping to supplement other supplies.

The geographic area considered for cumulative impacts resulting in groundwater overdrafting is the groundwater basin serving San Joaquin County, and specifically, the Tracy area. If demand exceeds available surface water supplies, even with maximum wastewater reclamation under current regulations, proposed development could cause overdrafting of existing groundwater resources. Significant overdrafting can cause subsidence, decreased storage capacity in the groundwater basin, and reduced opportunities to use the groundwater to serve future water needs.

Analysis in this DEIR indicates that the surface water supply provided to the project through existing water rights would be adequate to serve the planned level of development, assuming water conservation efforts were implemented. However, other cumulative growth in the Tracy Planning Area does not have an identified source of adequate surface water supply. Growth allowed under the City of Tracy Urban Management Plan, as well as growth allowed by the County for the New Jerusalem new community project southeast of Tracy, could cause a serious overdrafting of local groundwater, if new surface water sources were not obtained. Existing agricultural irrigation districts will experience strong pressures to convert their historic water sources to municipal and industrial uses, as a direct result of cumulative growth plans in the Tracy Planning Area. Potential impacts

of cumulative growth on groundwater resources are mitigated in the unincorporated area by the adopted County Water Policy, which requires that all new development (all General Plan Amendments) prove that the planned water consumption can be served by the amount of water historically associated with the agricultural use of the land or by a new water supply brought in to the County.

Mitigation Measures

The policy implications of existing irrigation districts, which have historically served only agricultural water users, changing into multi-purpose water supply agencies should be addressed by the County in its General Plan and by the City of Tracy in its Urban Management Plan. Analysis of the fiscal impact should be undertaken, especially regarding the potential pressure to equalize water rates which could affect preservation of farmland in San Joaquin County. The City of Tracy should adopt a similar policy to the County's Water Policy in their Urban Management Plan to ensure that urban growth within the City does not cause an increase in overdrafting of the groundwater basin.

Wastewater Treatment and Disposal

The geographic area under consideration for wastewater treatment (not disposal) is the Tracy Planning Area. Since the Mountain House project incorporates a wastewater treatment system that would serve only the proposed development, there would not be a cumulative impact of overburdening an existing wastewater system.

The geographic area relevant to disposal of treated effluent is the Tracy Planning Area and adjacent Delta lands, including the entire length of Old River, and all discharges into the River. The Central Valley Regional Water Quality Control Board (RWQCB) regulates the quantity and quality of discharges into Old River to ensure that State and Federal water quality standards are met. The RWQCB limits additional discharges into Old River due to a concern about cumulative impacts on water quality in the River and the downstream Bay-Delta facilities, such as the Delta-Mendota Canal.

The project proposes to store treated wastewater in ponds on Fabian Tract during the winter and irrigate adjacent lands with the treated effluent during non-winter months. Existing agricultural drains on Fabian Tract would remain; thus, there is the potential for heavy metals or other constituent parts of the treated effluent to be discharged into the Old River, if appropriate mitigation programs are not implemented. Section 4.4.2 of this DEIR recommends mitigation for this impact. A potentially significant cumulative impact could occur if the City of Tracy also began storing effluent and irrigating agricultural fields within the Old River watershed with treated effluent, without appropriate mitigation. This cumulative impact could occur if wastewater generated by development allowed under the City's Urban Management Plan were served by land disposal or by increased discharges to Old River under the City's existing permit granted by the RWQCB.

Cumulative impacts related to wastewater sludge disposal are considered on a county-wide basis, since the County is obligated to provide sites within the County for solid waste disposal, including those sites accommodating sludge. The County's existing Solid Waste Management Plan (SWMP) identifies disposal sites which are designed to accommodate demand serving long-term growth in the

6.0 ADDITIONAL CEQA CONSIDERATIONS

County. The integrated waste management planning process, currently under way, will update and replace the SWMP, and may change policies relating to sludge disposal, including potential out-of-County disposal options. Sewage sludge is currently not accepted at any public landfills operated by San Joaquin County, although one private landfill near Stockton has been permitted to accept sewage sludge.

Mitigation Measures

San Joaquin County should coordinate Mountain House plans for off-site wastewater land disposal with the involved State agencies (the California Department of Health Services and Central Valley RWQCB) as well as with the City of Tracy's long-term plans for wastewater disposal. The implementation of reclamation projects, including agricultural and landscape irrigation, and groundwater recharge with reclaimed water, should be coordinated so that any potential cumulative environmental impacts to Old River are identified and mitigated. Any new communities or significant urban projects in the unincorporated areas in the County should be required to identify adequate acreage for sludge treatment and/or disposal prior to the approval of Master and Specific plans.

POPULATION, HOUSING, AND EMPLOYMENT

The area of analysis for cumulative impacts related to population, housing, and jobs is San Joaquin County plus the eastern portions of Alameda and Contra Costa counties. Cumulative development proposed for southwestern San Joaquin County (the Tracy-Lathrop-Manteca area) has the potential to exacerbate the County's existing imbalance between non-agricultural jobs and housing in the short term, which could result in a larger percentage of out-commuters. The amount of new housing planned in the Mountain House and New Jerusalem new towns and by the cities of Tracy, Lathrop, and Manteca is approximately 93,000 housing units, which could result in population growth in the Tracy-Lathrop-Manteca area of about 258,000 additional residents (Table 6.2). In the Tracy area alone, buildout of the Tracy Urban Management Plan would quadruple the size of the city to 160,000 residents, equal to construction of about 45,000 housing units. With full buildout of the City of Tracy and the two new towns in the unincorporated area, the population of the Tracy Planning Area would reach approximately 226,000 residents. Much of this growth may not occur until after the year 2010. This amount of cumulative growth is also dependent on the provision of adequate infrastructure (e.g., water supply, wastewater treatment and disposal, new roads).

Significant job growth is projected in the General Plans for Tracy, Lathrop, and Manteca, and the two new communities in the unincorporated area. The Tracy Urban Management Plan projects the creation of approximately 140,000 new jobs during the long-term (forty-year) buildout of the plan, with almost 100,000 new industrial jobs. Added to the planned employment in the Mountain House and New Jerusalem new towns, the Tracy Planning Area would grow to an eventual employment base of approximately 191,000 jobs (Table 6.2). Based on these estimates, at full buildout in the Tracy Planning Area, the jobs to employed residents ratio would be about 1.4 jobs for every worker.

TABLE 6.2
**CUMULATIVE GROWTH IN SOUTHWESTERN
 SAN JOAQUIN COUNTY**

Jurisdiction/Project	Existing Population	"Buildout" Population²	"Buildout" Housing (dwelling units)⁵	"Buildout" Jobs⁵
Tracy Urban Management Plan ¹	40,500	150,000	80,800	153,300
Mountain House New Town	--	44,000	16,100	22,000
New Jerusalem New Town	--	22,000	7,600	16,000
Subtotal: Tracy Planning Area	49,500²	226,000	104,500	191,300
Manteca Public Facilities Infrastructure Plan ³	53,000	111,000	33,000	54,000
Lathrop General Plan ⁴	8,000	32,200	11,200	22,000
TOTALS	110,000	368,200	148,700	267,300

Sources: San Joaquin County (1992c); BASELINE; City and County planning documents.

¹ The City of Tracy currently has a population of about 40,500 residents. Much of the projected job growth would occur after the year 2010, and some of the projected industrial job growth may never occur at all, due to lack of a labor supply.

² Includes approximately 9,000 residents who live in unincorporated areas around Tracy.

³ The Manteca Public Facilities Infrastructure Plan (1993) includes infrastructure plans for the buildout of the City's General Plan. The "existing" population estimate includes approximately 9,000 residents in unincorporated areas. Some of the housing growth and approximately two-thirds of the job growth would occur after the year 2020.

⁴ Includes the Gold Rush City resort/theme park.

⁵ "Buildout" includes existing plus new population, housing and jobs. Buildout of the City and County General Plans may never reach these levels, depending on whether adequate infrastructure (water supply, etc.) can be provided, and whether there is a market for all the new housing and employment opportunities.

It is doubtful, however, that the amount of job growth that is projected by the City of Tracy will ever be realized, because of the lack of a labor supply to fill the positions due to competition from other regional employment centers (e.g., the Tri-Valley area of eastern Alameda County). The cities in the Livermore-Amador Valley area are planning for an equally large amount of housing and employment growth as in southwestern San Joaquin County. The population of eastern Alameda County is projected to increase from about 152,000 residents to 240,300. Full "buildout" of the General Plans and associated projects for the cities of Livermore, Dublin, and Pleasanton may result in the eventual construction of approximately 44,000 additional housing units and the creation of over 75,000 jobs (Table 6.3). Buildout of the Brentwood General Plan and the proposed Cowell Ranch New Town in southeastern Contra Costa County could add over 30,000 housing units and 36,000 new jobs.

6.0 ADDITIONAL CEQA CONSIDERATIONS

TABLE 6.3
 CUMULATIVE GROWTH IN EASTERN ALAMEDA AND
 CONTRA COSTA COUNTIES

Jurisdiction/Project	Existing Population ¹	"Buildout" Population ⁷	"Buildout" Housing (dwelling units) ⁷	"Buildout" Jobs ⁷
North Livermore ^{2,3}	--	30,000	12,500	5,200-13,000
City of Livermore ^{3,4}	60,000	72,500	27,200	50,800-101,500
South Livermore ³	--	7,500	2,800	2,000
East Dublin ³	--	32,500	13,900	22,600
City of Dublin ³	17,500	17,800	6,700	12,800
City of Pleasanton ³	62,000	80,000	30,000	58,100
Total: Eastern Alameda County	152,000	240,300	93,100	151,100-210,000
City of Brentwood ⁵	9,000	80,000	28,400	28,000
Cowell Ranch New Town ⁶	--	12,000	7,600	8,000
Total: Eastern Contra Costa County	9,000	92,000	36,000	36,000

- ¹ Current (1993) population estimates by BASELINE, based on published reports.
- ² Range of "buildout" job estimates is from the City of Livermore (high estimate) and from Alameda County (low estimate).
- ³ "Buildout" estimates prepared by EPS, based on the General Plans of cities and associated studies, from Table B-4, *Draft East County Area Plan/Background Reports* (Alameda County, February 1993), as updated. North Livermore high buildout estimates from *Alameda County, East County Plan*, Table 5, adopted in May 1994. Estimates have been rounded.
- ⁴ The "buildout" jobs number for the City of Livermore General Plan may never be realized, because of the lack of a labor force to fill the jobs, according to EPS (Economic and Planning Systems, *Alameda County General Plans: Land Use and Jobs/Housing Analysis*, July 1992). EPS estimates the job "buildout" for the City to more realistically be 50,800.
- ⁵ From *Brentwood General Plan 1993-2010*.
- ⁶ From Contra Costa County, initial project description.
- ⁷ "Buildout" includes existing plus new population, housing and jobs. Buildout of the City and County General Plans may never reach these levels, depending on whether adequate infrastructure (water supply, etc.) can be provided, and whether there is a market for all the new housing and employment opportunities.

Mitigation Measures

As indicated in the Land Use section of this DEIR, jurisdictions in San Joaquin County and eastern Contra Costa and Alameda counties should be encouraged to adopt General Plans that designate only as much land as will be needed for development over a reasonable twenty-year planning period. Jurisdictions should take into account jobs and housing growth projections for adjacent cities when preparing their growth plans, so as not to overestimate the ability of a single city to capture job and housing growth. San Joaquin, Alameda, and Contra Costa counties should attempt to resolve inconsistencies in local and regional growth projections, based upon the combined cumulative total of all jurisdictions' General Plans.

BIOLOGICAL RESOURCES

The geographical area addressed for cumulative impacts to biological resources includes San Joaquin County and portions of eastern Alameda and Contra Costa counties (Figure 6.2). Cumulative development would result in a net reduction of existing habitat for wildlife, including habitat for a number of special-status taxa. The loss of suitable habitat for Swainson's hawk and San Joaquin kit fox, as well as other highly mobile avian and mammalian predators, would likely result in further decline of existing populations unless a comprehensive plan or plans were implemented providing for permanent habitat conservation, management, and enhancement.

Representatives of the U.S. Fish and Wildlife Service and California Department of Fish and Game have expressed concern that suitable habitat for mitigation of project-specific impacts on Swainson's hawk and kit fox may not be available, given the extent of cumulative development throughout the County. Projected growth outlined in the General Plans for the cities and the County impinges onto areas tentatively identified as conservation areas for Swainson's hawk in the south Delta area and for the San Joaquin kit fox in the Altamont Hills west of Tracy (Figure 6.2).

The San Joaquin Council of Governments has initiated a program to prepare a multiple-species Habitat Management Plan. If this habitat planning effort is successful, mitigation for habitat loss may be accomplished through the imposition of development fees and the acquisition of conservation easements on habitat lands. However, habitat planning efforts by the City of Stockton and San Joaquin County have, to date, not resulted in any adopted plans or programs. In lieu of a County-wide Habitat Management Plan, Mountain House and other developers may be required by Federal and State wildlife agencies to mitigate for habitat loss on a fragmented and case-by-case basis. Unless a coordinated approach to habitat conservation is provided on a County-wide basis, suitable replacement habitat may not be available for compensation of habitat lost to cumulative development in San Joaquin County.

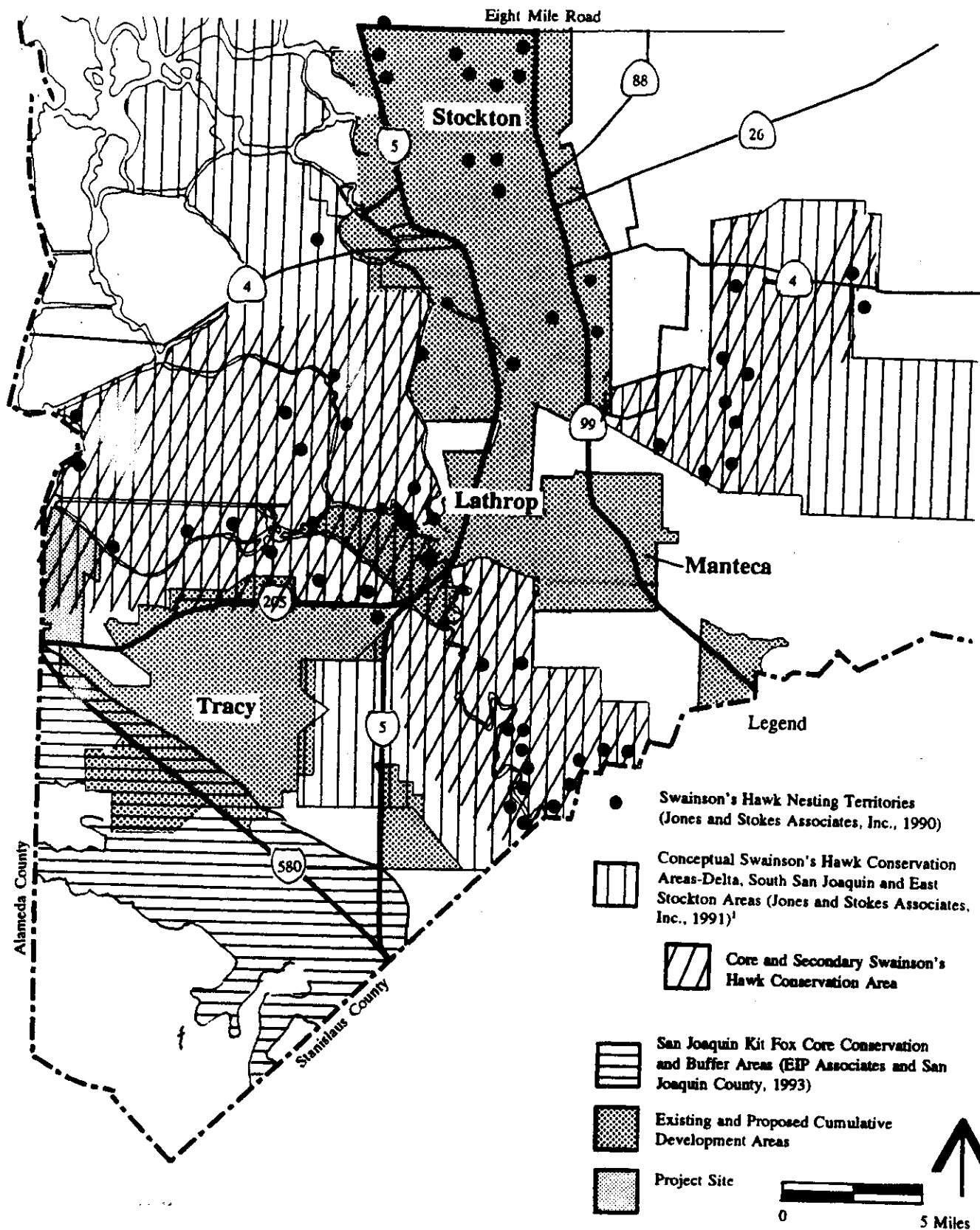
The loss and modification of wetlands on the site would contribute to an incremental reduction of seasonal foraging habitat for many water bird species that annually migrate through the southern portion of the County. Development along the southwest shore of Old River would contribute to a reduction in the quality of the productive fishery habitat.

Mitigation Measures

The County should participate in the preparation and implementation of a County-wide Habitat Management Plan for Swainson's hawk, San Joaquin kit fox, and other species of concern. Federal and/or State incidental "take" permits for endangered or threatened taxa should be obtained for the Mountain House project and other development projects, as required by the wildlife agencies. Copies of the "take" permits should be submitted to the County prior to issuance of any construction or site improvements to ensure that off-site replacement habitat is provided before destruction of existing habitat. Stringent zoning controls should be imposed in areas that have been identified by Federal and State wildlife agencies as habitats of biological significance.

CUMULATIVE DEVELOPMENT AND POSSIBLE HABITAT CONSERVATION AREAS

Figure 6-2



¹Includes Core, Secondary, and Tertiary Conservation Areas.

TRANSPORTATION

The transportation impacts of the project have been extensively analyzed in a multi-county, year 2010 cumulative growth scenario using the San Joaquin County Council of Government's (SJCCOG) travel demand model (which was revised and enlarged by DKS Associates in 1991 for use in the County General Plan Program). The SJCCOG traffic model has been used to evaluate the project's trip generation, the portion of the trip generation that would remain internal to the project site, and the distribution of external trips on the roadway network, over a multi-county area.

The SJCCOG travel demand model includes demographic data (housing units, job estimates for 1990 and 2010) for the following areas: Stanislaus County, the nine-county San Francisco Bay Area, the Sacramento region, and the Foothills region east of San Joaquin County including Amador County, Calaveras County, and Tuolumne County. The expanded multi-county model was successfully validated by applying it to 1990 land use/socio-economic data and comparing resulting model volume estimates to actual traffic counts throughout San Joaquin County and at County gateways. The expanded model was then used for forecasting the travel demand of the project and project alternatives by incorporating the appropriate San Joaquin General Plan land use and highway network assumptions for 2010, along with most recent available 2010 land use and network assumptions from Stanislaus County, the Metropolitan Transportation Commission (for the Bay Area), and the Sacramento Area Council of Governments. The analysis contained in Section 4.12 includes projected future traffic volumes for the project, as well as cumulative growth, for a wide area.

Mitigation Measures

Mitigation measures identified for the proposed project in Section 4.12 address cumulative traffic increases on the regional transportation network. No additional measures are recommended.

AIR QUALITY

The project is part of a pattern of urbanization within the San Joaquin Valley air basin that has important implications for regional air quality. The *1991 Air Quality Attainment Plan* (SJVUAPCD, 1991b) and *San Joaquin Valley Unified Air Pollution Control District PM-10 Nonattainment Area Plan* (SJVUAPCD, 1991a) are recent attempts to forecast future air quality trends and develop control strategies to bring air quality into compliance with the Federal and State ambient air quality standards. Even using all feasible and available control measures, attainment of the ozone, carbon monoxide, and PM-10 standards in the San Joaquin Valley air basin is not forecast in this decade. A major impediment to attaining these standards is projected growth in population and employment within the air basin.

Emissions for major developments and plans within San Joaquin County have been estimated in recent environmental documents (Table 6.4). While there are some differences in methodology and forecast period between the emissions estimates, it can be seen that the project would contribute to a forecasted substantial increase in county-wide regional pollutant emissions.

6.0 ADDITIONAL CEQA CONSIDERATIONS

TABLE 6.4

EMISSIONS FROM CUMULATIVE PROJECTS
AND PLANS IN SAN JOAQUIN COUNTY
(pounds per day)

	ROG	NO _x	PM-10	SO _x
Mountain House	—	—	—	—
Tracy Urban Management Plan/ General Plan (City of Tracy, 1993)	36,751	45,397	7,599	NA
Lathrop Comprehensive General Plan (City of Lathrop, 1991)	1,600	3,200	NA	NA
Stockton 1990 General Plan Revisions (City of Stockton, 1989)	11,200	11,000	NA	NA
San Joaquin County General Plan (San Joaquin County, 1992)	5,060	10,600	NA	NA

Notes: NA = Not Available
 ROG = Reactive Organic Gases
 NO_x = Nitrogen Oxides
 PM-10 = Particulate Matter, 10 microns
 SO_x = Sulfur Oxides

TABLE 6.5

SAN JOAQUIN VALLEY AIR BASIN
PROJECT REGIONAL EMISSIONS
(tons/day)

	ROG	NO _x	PM-10
1987	750	586	1,085
1994	662	531	1,109
1997	672	523	1,019
2000	679	530	984

Source: SJVUAPCD 1991a, 1991b.

Notes: ROG = Reactive organic gases.
 NO_x = Nitrogen oxides.
 PM-10 = Particulate matter, ten microns.
 SO_x = Sulfur oxides.

Table 6.5 shows projected emissions of ROG, NO_x and PM-10 for the San Joaquin Valley air basin from 1987 through 2000, assuming implementation of all feasible control measures developed in the nonattainment plans for the region. While year 2000 emissions are lower than year 1987 emissions (28 percent for ROG, 29 percent for NO_x and 10 percent for PM-10), attainment of the standards requires much larger reductions in emissions. For ROG and NO_x, a 65 percent reduction is mandated in the California Clean Air (based on 1987 emissions). The projections show, that in the absence of new State and Federal air quality programs, regional ozone and PM-10 air quality in the San Joaquin Valley air basin would gradually improve, but not sufficiently to meet the State and Federal standards by the next century.

The San Joaquin Valley air basin is also nonattainment for carbon monoxide (CO), but violations of the ambient air quality standards are limited to four urban areas: Stockton, Modesto, Fresno, and Bakersfield. These areas are not predicted to attain the State and Federal ambient air quality

standards for carbon monoxide by the year 2000 (SJVUAPCD, 1991b). The project's contribution to traffic volumes at these four locations would be so small that the project would not be considered to contribute to cumulative impacts on carbon monoxide levels at these locations.

Mitigation Measures

Similar mitigation measures prepared for the project (i.e., land use mixes to promote non-vehicular travel) should be implemented for all cumulative growth. The County should develop a fee system for all new development, with funds to be used to mitigate air quality impacts (e.g., park-and-ride lots, inspection programs for automobiles, installation of air pollution control equipment, inspections of farm equipment, and new staff for SJVUAPCD).

NOISE

The geographic area used in the assessment of cumulative noise impacts is the area for which future traffic projections are available. The proposed project analysis takes into account future cumulative growth. Therefore, mitigation measures recommended for the project would also be appropriate for some cumulative impacts. The FSEIR for the Mountain House General Plan Amendment previously analyzed noise impacts in the Tracy planning area. The results of this analysis is illustrated in Figure 6.3. Because the level of cumulative growth forecast in the Tracy area has not changed significantly for the year 2010 since publication of the FSEIR for the General Plan Amendment, the cumulative noise analysis remains valid.

In the future, noise level increases along main access roads to the project site would be primarily due to the proposed project. Noise levels would increase along streets leading to the City of Tracy, due to additional traffic generated by Mountain House and other development approved by the City of Tracy (Figure 6.3). Noise level increases, relative to existing noise levels, due to cumulative growth in the area would range between 1 and 18 dB. The most significant noise level increases would be along Altamont Pass Road (18 dB), Hansen Road (16 dB), portions of Patterson Pass Road (6 to 11 dB), Lammers Road (3 to 13 dB), and Schulte Road (4 to 9 dB). Other streets in and around the City of Tracy would also experience significant noise level increases (Figure 6.3). Increases in noise levels above 5 dB are considered to be significant. Existing residences along streets experiencing noise level increases above 5 dB would be potentially impacted. Roads with noise level increases above 10 dB currently carry very low traffic volumes.

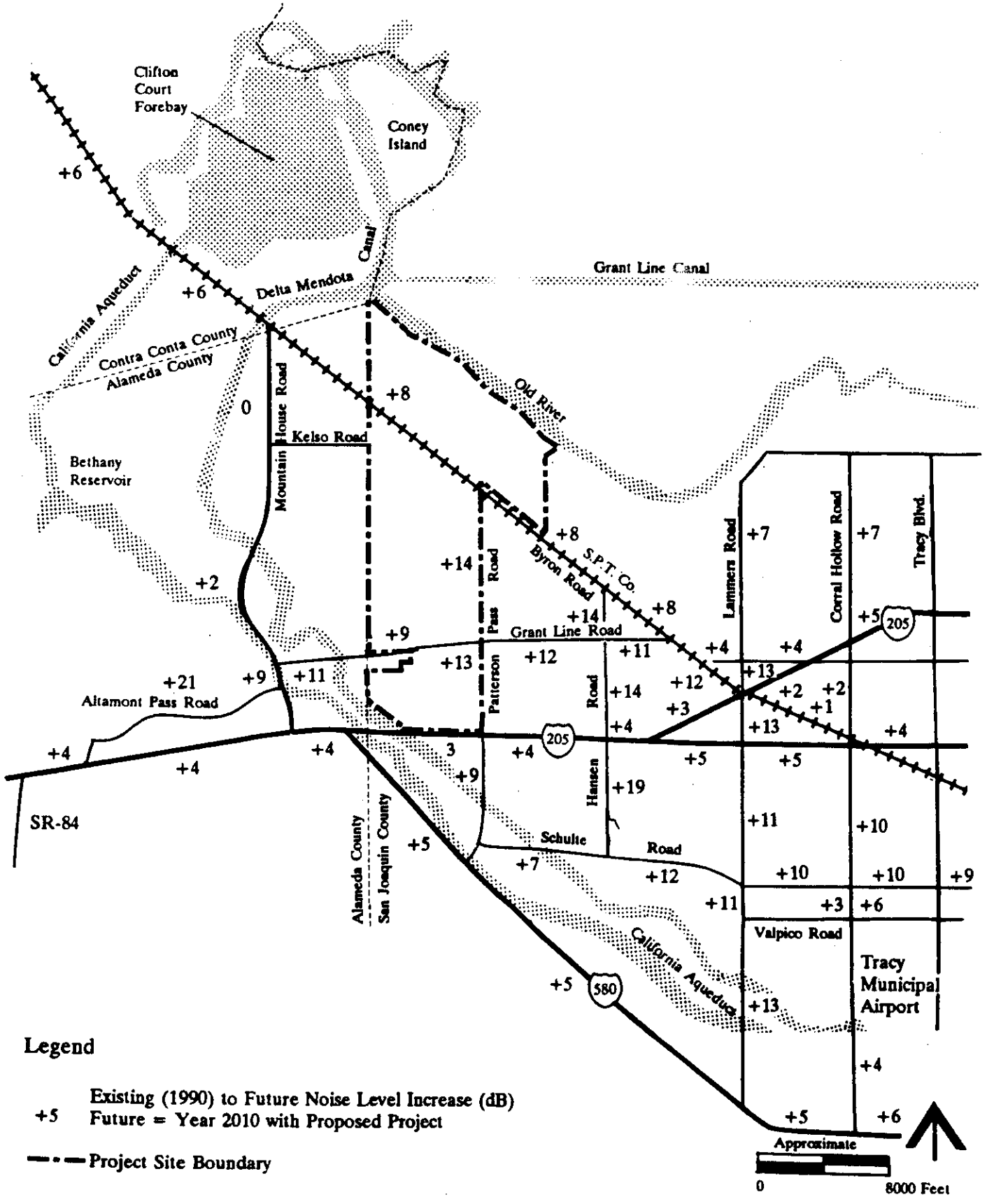
Mitigation Measures

The County should use noise policies contained in the Noise Element of the General Plan to evaluate potential noise impacts associated with proposed projects. Projects to be located in areas showing large noise increases (Figure 6.3) should require noise studies to quantify the project contribution to the future noise environment. If the noise impacts associated with a specific project are found to be significant, mitigation measures should be proposed to reduce the impact.

Substantial growth in the study area is anticipated over the next 20 years. As a result of proposed developments, the character of the greater area would change significantly and some of the noise

CUMULATIVE ANALYSIS AREA FOR NOISE IMPACTS

Figure 6.3



Source: Illingworth and Rodkin, Inc.

R10114-BO.03 6/6/94

BASELINE

impacts would be unavoidable. However, the County should use its noise policies to allow for proper planning and minimize noise impacts associated with future development.

New, more restrictive noise and land use compatibility criteria for all proposed land uses should be adopted by the County to match criteria of the State of California, at a minimum.

GROWTH-INDUCING IMPACTS

The proposed project has been planned with a mix of land uses to be a "self-contained community" and, thus, to minimize growth-inducing impacts. However, over time, development in this agricultural area could expand beyond the boundaries of the site due to both economic and environmental factors.

Agricultural lands at the edges of Mountain House may increase in value due to the proximity of urban infrastructure and development. Potential land use conflicts between urban and agricultural areas (i.e., odors, noise, trespassing) could discourage farmers from continuing their agricultural operations and they could possibly file for nonrenewal of their Williamson Act contracts. While existing zoning and General Plan designations show agricultural use for the surrounding lands, private landowners could, over time, request amendments and rezoning to urban uses. Such requests could also occur if water rights of the Byron-Bethany Irrigation District were reduced and water supply for surrounding agricultural operations were restricted.

Growth-inducing impacts could also result if the on-site water and wastewater plants were sized with a greater capacity than that needed to serve the project. If these plants were built at the outer edges of the site, as proposed, adjoining landowners may be able to connect new water and wastewater lines to the project's facilities.

One way to minimize growth-inducing impacts would be to have agricultural or open space buffer zones on all sides of the project that contain deed restrictions limiting development for perpetuity (e.g., through an agricultural land trust). Such buffer zones should be maintained on the west and east sides of the project. On-site deed restriction zones could also be established to prevent water and sewer line extensions across the zones. Sizing the on-site water and wastewater plants to serve no more than the projected on-site population would eliminate this potential growth-inducing impact.

Interstate 205 and Old River would provide an adequate buffer to minimize growth-inducing impacts to the south and north of the project site, respectively. The costs of extending infrastructure across these two barriers would deter new development. Agricultural lands south of I-205 will be subject to growth inducement because of the proximity of Mountain House and the Patterson Pass Business Park, and because the City of Tracy Urban Management Plan designates long-term growth in the area. However, growth south of I-205 will be prohibited from receiving services from Mountain House.

RELATIONSHIP OF SHORT-TERM USES OF THE ENVIRONMENT VERSUS LONG-TERM PRODUCTIVITY

The development of the project would remove more than 4,000 acres from agricultural use. About 77 percent of this acreage has been identified as Prime Farmland. Thus, the long-term productivity of this farmland would be eliminated by the proposed project. The farmland's value as wildlife habitat for the Swainson's hawk and other species would also be eliminated by the project. However, the General Plan Amendment to the General Plan 2010, approved by the Board of Supervisors in February 1993, allowed the urban development of the project site, and the Board made overriding findings for removing the land from agricultural uses. According to the applicant, development of the project would be justified at the present time due to the demand for housing and employment in this part of San Joaquin County, and the economic benefits (i.e., employment opportunities and tax revenue) that would accrue over the projected buildout period.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

The unavoidable adverse impacts that would result from buildout of the proposed Mountain House project include the following:

- Unacceptable Levels of Service for regional roadways, including certain locations at I-205 and I-580;
- Increased emissions of ozone precursors and total suspended particulate matter;
- Exposure of the public and structures to seismic ground shaking;
- Loss of more than 4,000 acres of wildlife habitat.

SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Approval of the Mountain House project and ultimate development of the site would result in the following irreversible changes to the environment:

- Contribution to degradation of air quality associated primarily with increased automobile travel generated by the project, in conjunction with cumulative traffic increases; and
- Commitment of non-renewable energy resources for vehicular travel, construction activity, and indoor climate controls.